



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,914	11/14/2003	Tsutomu Okabe	245161US3 CIP	7655

22850 7590 03/03/2006

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,914

Applicant(s)

OKABE ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1205.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of copending Application No. 10/706,977. Although the conflicting claims are not identical, they are not patentably distinct from each other because there are only slight stylistic wording differences/inclusions.

3. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/330,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because there are only slight stylistic wording differences/inclusions.

4. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of copending Application No. 10/330,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because there are only slight stylistic wording differences/inclusions.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,186,331 to Kinpara et al.

7. Kinpara et al. discloses a wafer processing apparatus including a mini-environment portion (Figures 3 and 4, 5) having a chamber therein and configured to transfer a wafer between a clean box (11) having a lid (33) and a housing the wafer and the chamber, said apparatus comprising: a first opening portion (23, at wall 21) which is formed on a part of a wall comprising the chamber to be in communication with the chamber, facing an opening of the clean box so as to allow loading and unloading the wafer between the clean box and the mini-environment portion; and a door (25) that closes, when the transfer is not performed, the first opening portion and opens, when the transfer of the wafer is performed, wherein when the wafer transferring operation is performed, the clean box is fixed with a first clearance (Figure 3, 27) around the entire perimeter of the clean box having a predetermined distance between the opening formed plane of the clean box and the outside surface of the part of the wall in which the first opening portion is formed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1763

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinpara et al. as applied to claim 1 in view of U.S. Patent Pub. 2002/0064439A1 to Otaguro.

11. Kinpara et al. disclose the invention substantially as claimed and as described above.

12. However, Kinpara et al. fail to disclose when the door is positioned to substantially close the first opening portion, a second clearance through which the chamber and the exterior of the mini-environment portion are in communication exists and wherein the second clearance is in communication with the first clearance so as to form a gas flow path from the chamber to the exterior of the mini-environment portion.

13. Otaguro discloses a slit opening (Figure 1, 52; paragraph 48) for the purpose of contributing to the maintenance of a high level of cleanliness in a mini-environment. The second clearance is provided in an area of the interface between the clean box and mini-environment portion that would be in fluid communication with the first clearance.

14. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to provide an opening slit for providing communication between the chamber and the exterior of the mini-environment in Kinpara et al. in order to contribute to the maintenance of a high level of cleanliness in the mini-environment as taught by Otaguro.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,186,331 to Kinpara et al. in view of U.S. Patent Pub. 2002/0064439A1 to Otaguro.

16. Kinpara et al. discloses a wafer processing apparatus substantially as claimed and including a mini-environment portion (Figures 3 and 4, 5) having a chamber therein and configured to transfer a

Art Unit: 1763

wafer between a clean box (11) having a lid (33) and a housing the wafer and the chamber, said apparatus comprising: a first opening portion (23, at wall 21) which is formed on a part of a wall comprising the chamber to be in communication with the chamber, facing an opening of the clean box so as to allow loading and unloading the wafer between the clean box and the mini-environment portion; and a door (25) that closes, when the transfer is not performed, the first opening portion and opens, when the transfer of the wafer is performed, wherein when the wafer transferring operation is performed, the clean box is fixed with a first clearance (Figure 3, 27) around the entire perimeter of the clean box having a predetermined distance between the opening formed plane of the clean box and the outside surface of the part of the wall in which the first opening portion is formed.

17. However, Kinpara et al. fail to disclose when the door is positioned to substantially close the first opening portion, a second clearance through which the chamber and the exterior of the mini-environment portion are in communication exists and wherein the second clearance is in communication with the first clearance so as to form a gas flow path from the chamber to the exterior of the mini-environment portion.

18. Otaguro discloses a slit opening (Figure 1, 52; paragraph 48) for the purpose of contributing to the maintenance of a high level of cleanliness in a mini-environment. The second clearance is provided in an area of the interface between the clean box and mini-environment portion that would be in fluid communication with the first clearance.

19. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to provide an opening slit for providing communication between the chamber and the exterior of the mini-environment in Kinpara et al. in order to contribute to the maintenance of a high level of cleanliness in the mini-environment as taught by Otaguro.

Response to Arguments

20. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection. New art has been relied upon for teaching the newly added recitations.


Art Unit: 1763

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
28 February 2006